

IN THE U.S. PATENT AND TRADEMARK OFFICE

APPLICANTS: Norden Huang  
SERIAL NO.:  
FILED:

ART GROUP UNIT:

FOR: **COMPUTING INSTANTANEOUS FREQUENCY BY NORMALIZING  
HILBERT TRANSFORM**

INFORMATION DISCLOSURE STATEMENT

Mail Stop Patent Application  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

May 8, 2003

Sir:

Pursuant to 37 C.F.R. § 1.97 and 1.98, applicants hereby submit an Information Disclosure Statement for consideration by the Examiner.

I. LIST OF PATENTS, PUBLICATIONS OR OTHER INFORMATION

The patents submitted for consideration by the Office are listed on PTO/SB/08A, attached hereto.

II. COPIES

Submitted herewith is a legible copy of each U.S. patent.

III. CONCISE EXPLANATION OF THE RELEVANCE

All of the patents are in the English language or were cited in an English language Search Report, a copy of which is attached hereto (concise explanation not required).

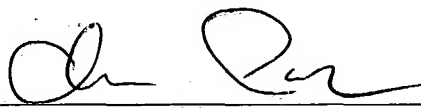
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No payment is necessary as this Information Disclosure Statement is being filed with a national application thereof.

If The Examiner has any questions concerning this IDS, he/she is requested to contact the undersigned. If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 14-0116.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. §§ 1.16 or 1.17 to Deposit Account No. 14-0116.

Respectfully submitted,

By   
Chan K. Park Date  
Reg. No. 48,175

Code 503/Office of Patent Counsel  
NASA Goddard Space Flight Center  
Greenbelt, Maryland 20771  
(301) 286-7351

Enclosures:   X   PTO/SB/08A

  X   References (4)

       Foreign Search Report

       Other:

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

|                        |              |
|------------------------|--------------|
| Application Number     |              |
| Filing Date            |              |
| First Named Inventor   | Huang        |
| Art Unit               |              |
| Examiner Name          |              |
| Attorney Docket Number | GSC 14,673-1 |

Sheet 1 of 2

**U. S. PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Document Number                          | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines, Where<br>Relevant Passages or Relevant<br>Figures Appear |
|--------------------|-----------------------|--|--------------------------------|--|---|
|                    |                       | Number-Kind Code <sup>2</sup> (if known) |                                |  |   |
|                    |                       | US- 5,983,162                            | 11/09/99                       | Norden Huang                                       |   |
|                    |                       | US- 6,381,559                            | 4/30/02                        | Norden Huang                                       |   |
|                    |                       | US- 6,311,130                            | 10/30/01                       | Norden Huang                                       |   |
|                    |                       | US-                                      |                                |  |   |
|                    |                       | US-                                      |                                |  |   |
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|                    |                       | US-                                      |                                |  |   |

**FOREIGN PATENT DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Foreign Patent Document   | Publication Date<br>MM-DD-YYYY | Name of Patentee or<br>Applicant of Cited Document | Pages, Columns, Lines,<br>Where Relevant Passages<br>Or Relevant Figures Appear | T <sup>6</sup> |
|--------------------|-----------------------|---|--------------------------------|--|---|----------------|
|                    |                       | Country Code <sup>3</sup> Number <sup>4</sup> Kind Code <sup>5</sup> (if known) |                                |  |   |                |
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Examiner  
SignatureDate  
Considered

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. <sup>1</sup> Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at [www.uspto.gov](http://www.uspto.gov) or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, Washington, DC 20231.

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|-------|---|----|---|------------------------|---------------|
| Sheet | 2 | of | 2 | Application Number     |               |
|       |   |    |   | Filing Date            |               |
|       |   |    |   | First Named Inventor   | Norden Huang  |
|       |   |    |   | Art Unit               |               |
|       |   |    |   | Examiner Name          |               |
|       |   |    |   | Attorney Docket Number | 65C 14, 623-1 |

**NON PATENT LITERATURE DOCUMENTS**

| Examiner Initials* | Cite No. <sup>1</sup> | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | T <sup>2</sup> |
|--------------------|-----------------------|---|----------------|
|                    |                       | NORDEN HUANG, The empirical decomposition and the Hilbert spectrum for nonlinear and non-stationary time series analysis, Proc. of The Royal Society, pp903-995   |                |
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| Examiner Signature |  | Date Considered |  |
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